

PROJECT NUMBER: 5001
PROJECT TITLE: Packaging Studies
PROJECT LEADER: H. R. Dunaway
PERIOD COVERED: July, 1988

PACKAGING STUDIES

A. Objective: Provide technical packaging support to Manufacturing, Manufacturing Services, Engineering, Purchasing, and Quality Assurance. In addition, assist New Products Directorate in evaluating new packaging concepts and products.

B. Status/Plans:

1. Residual Printing Solvents in Packaging Materials: Coordinated testing, and advised Purchasing on the acceptability of the following items for use in production:

- PMI FF 100 FT 20 and 20/200
- PMI LTS 100 FT 20 and 20/200
- Va Slims Shop Carton Insert
- Merit Taste Challenge 'dotted line' Carrier
- Va Slims Lts 120 FT 20
- B&H 100 Men SP 20
- No Frills KS SP 20/200
- Thieele-Engdahl water base lacquer DJW 5123
- Marl LS FT 20 from VFB w/PPG water lacquer
- 60mm Alpine Singapore Tipping paper
- Marl LS FT 20 CHP 3F-909D
- Marl LS FT 20 VFB 3F-925E
- PMI Lts Ctn Re-print RCS 7/15
- PM Super Lts SP 20, 20/200, Closure, and FT 6 (CWL)
- Ethyl Cellosolve sample from RCS
- PMI LTS FT 20 Re-print RCS 7/18
- Alpine KS SP 20, 20/200, Closure, and Tear Tape Singapore
- PMI solvent and ink samples (23 items) from RCS
- PMI Lts FT 20 and 20/200 resampled at Cabarrus 7/20 and 7/25
- PM Super Lts 20/200 resampled at Cabarrus 7/20
- MLS FT 20 3F-925E resampled at Cabarrus 7/20
- Va Slims 120 FT 20 resampled at Louisville 7/21
- Carton Topper Coupon with and without water lacquer
- PMI Lts 100 20/200 Solvent Decay Study sampled at 1, 3, 7, 30, & 100 hours @ 73-75° F
- PM Super Lts FT 6 resampled at S/S after weekend airing

2. Solvent Decay Rate: Upon discovering the presence of n-Propyl Cellosolve in PMI LE Lts and FF packaging materials, printed by RCS Canada, an experiment was conducted by exposing single carton blanks to a temperature of 73-75° F and sampling them at 1, 3, 7, 30, and 100 hour intervals for Headspace/GC analyses. The decay rate curve resulting from this test projected no appreciable reduction in the residual level of n-Propyl Cellosolve after 41 days of airing.

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